OVERALL PROJECT PURPOSE

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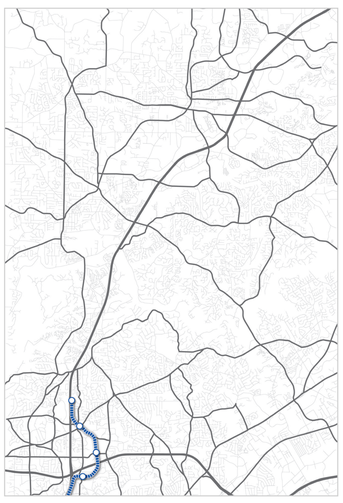
CONNECT400
GA 400 TRANSIT INITIATIVE

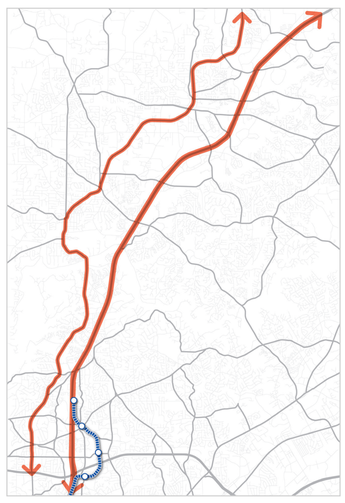
GOAL 1

Improve Mobility and Access

FRAMEWORK

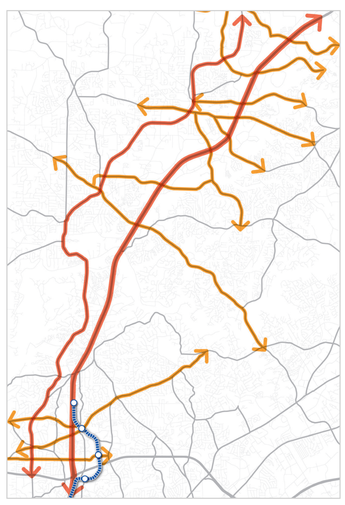


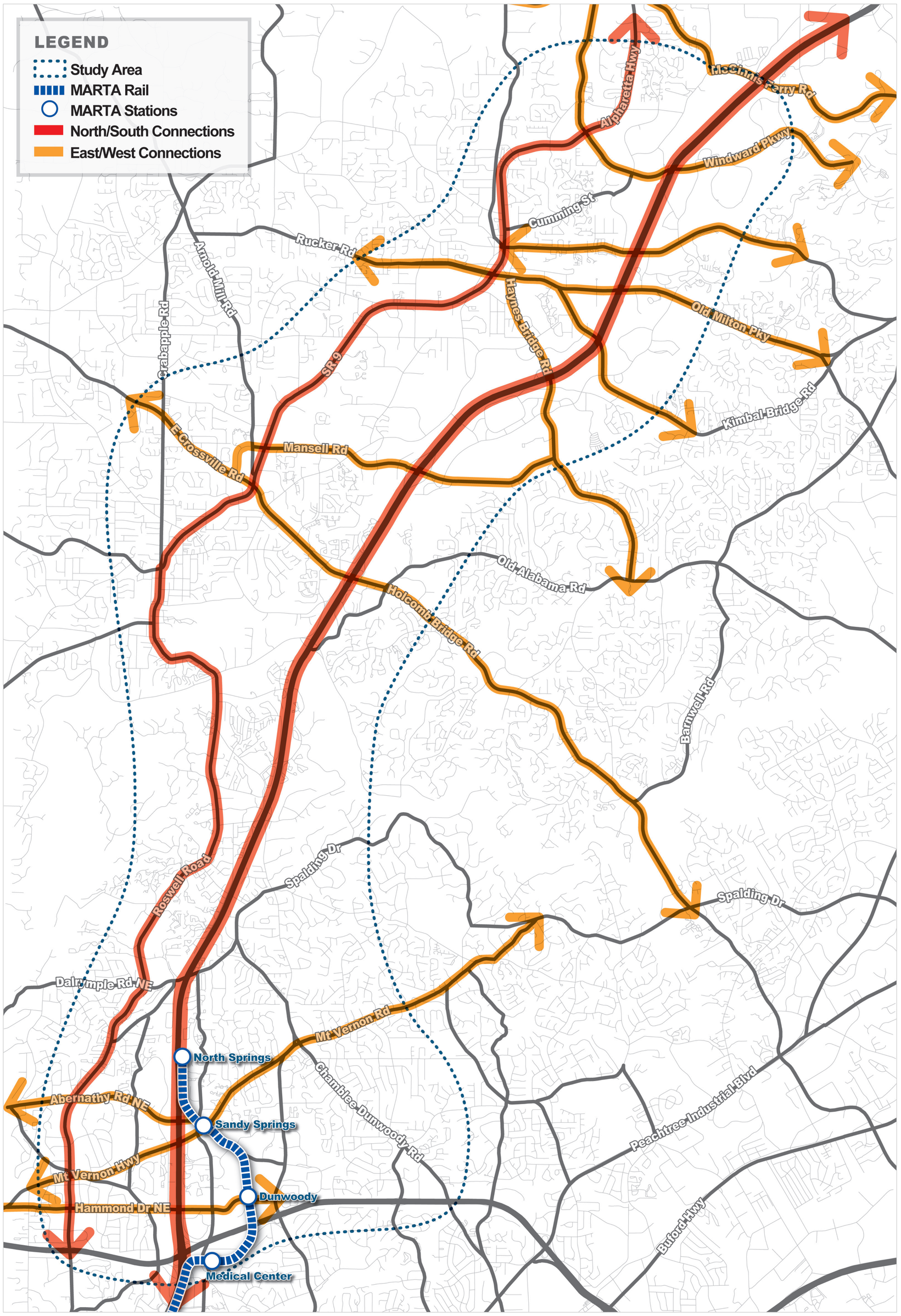
NORTH / SOUTH



EAST / WEST

CONNECTIVITY





OBJECTIVES

- Improve transit access and connectivity to employment, education, residential, and activity centers within the study area and the region
- Increase transit ridership and capacity
- Improve transit travel times and reliability for all trip purposes
- Improve multimodal connections and access to the existing transit systems

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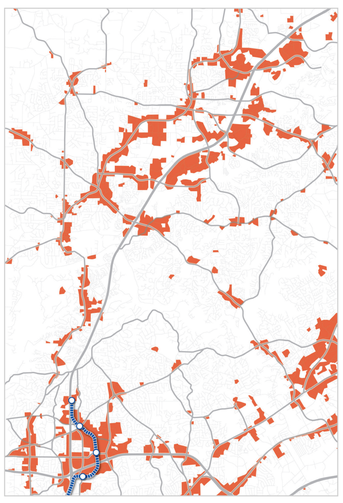
GA 400 TRANSIT INITIATIVE

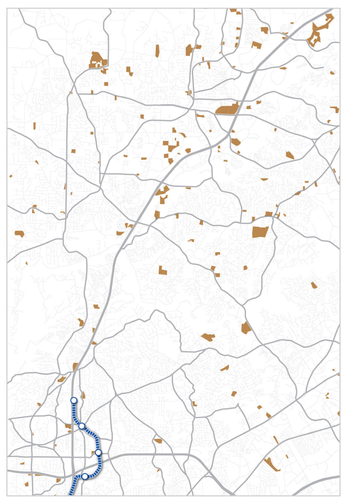
GOAL 2

Support Land Use and Economic Development Planning

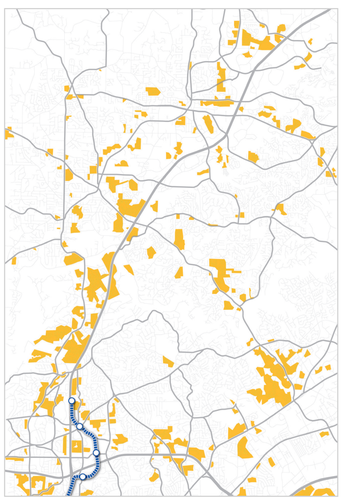
COMMERCIAL



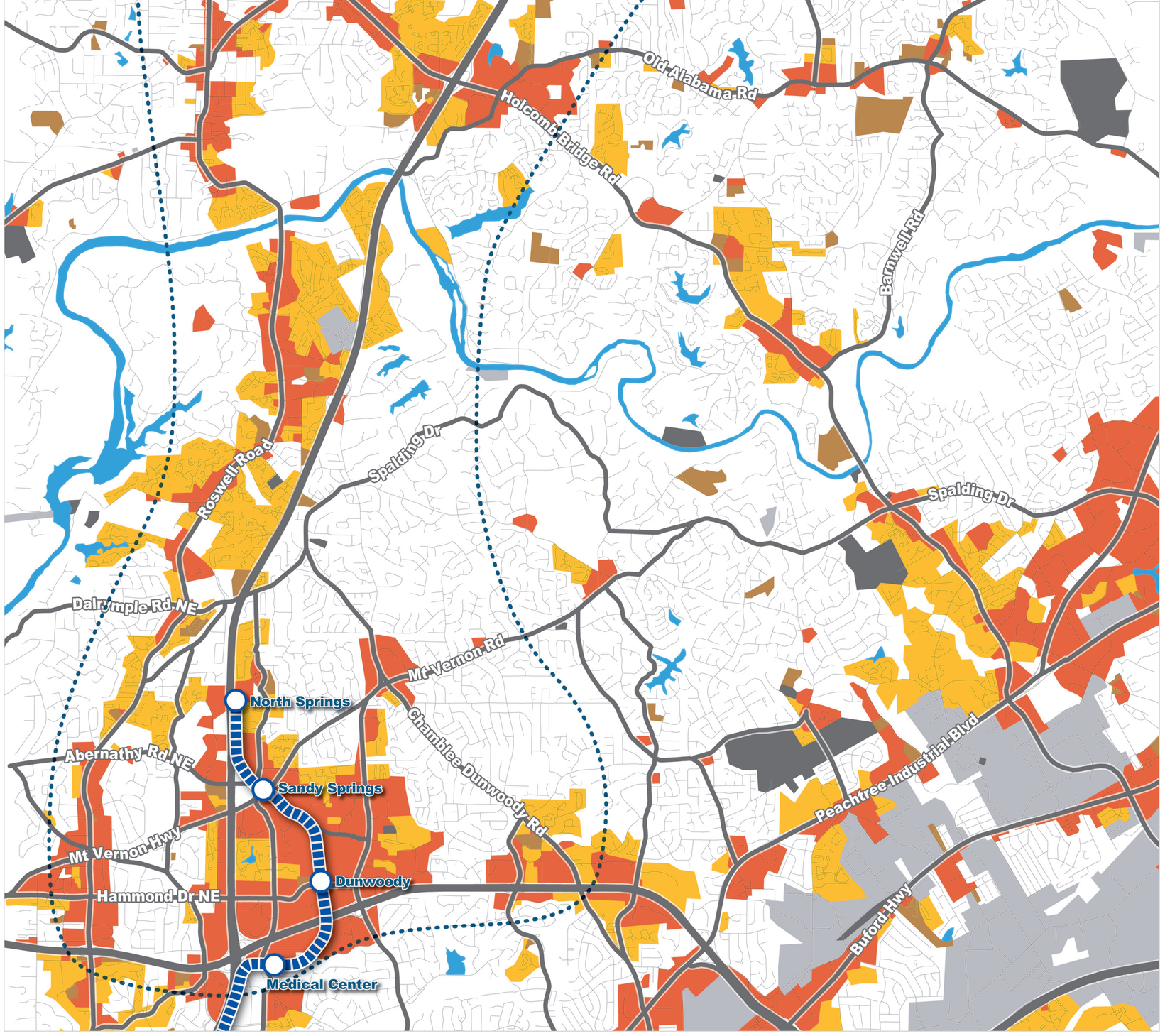
TRANSITIONAL



MULTI-FAMILY



INDUSTRIAL / URBAN



OBJECTIVES

- Complement land use plans of study area jurisdictions
- Support planned and potential economic development
- Provide opportunities for compact land development that supports transit ridership

marta

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GOAL 3

Provide Cost-Effective Transit Service

BUS

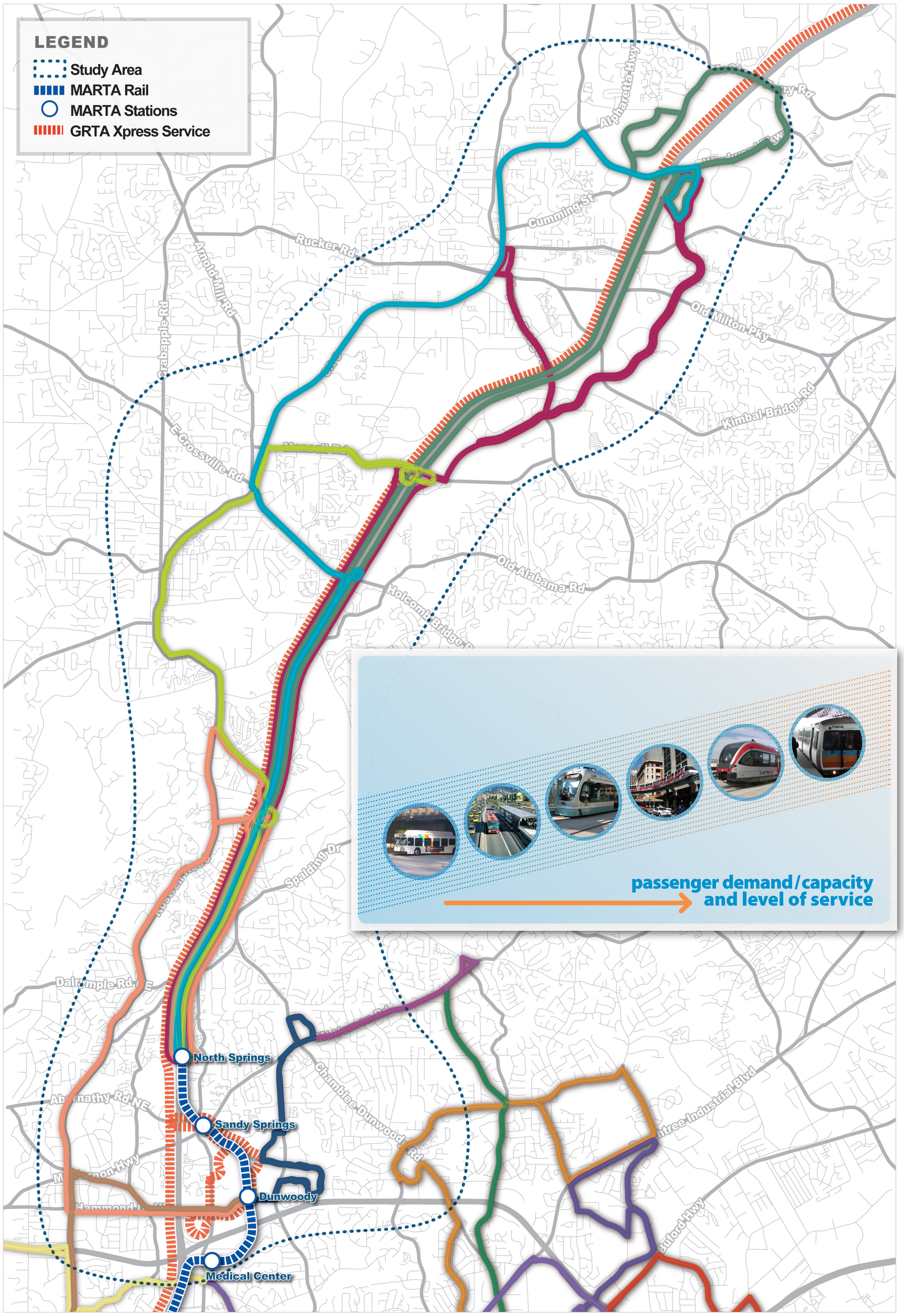
BUS RAPID TRANSIT

LIGHT RAIL TRANSIT

HEAVY RAIL TRANSIT

DIESEL MULTIPLE UNIT

AUTOMATED GUIDEWAY TRANSIT



OBJECTIVES

- Maximize operating cost-efficiency
- Match the transportation investment to the study area's level of travel demand
- Provide a cost-effective transit system

marta

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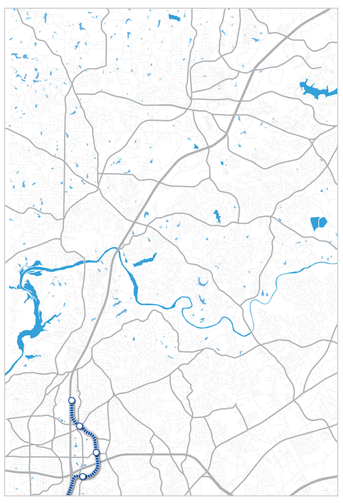
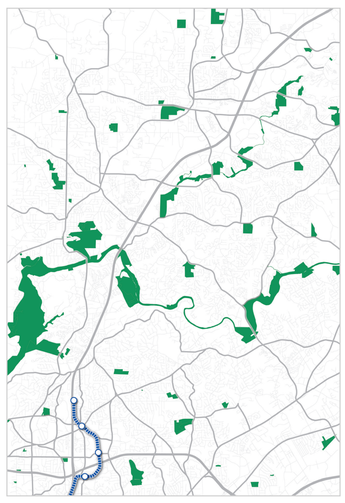
GOAL 4

Minimize Environmental Impacts

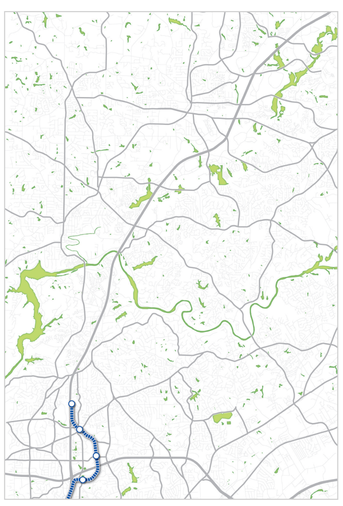
WATER



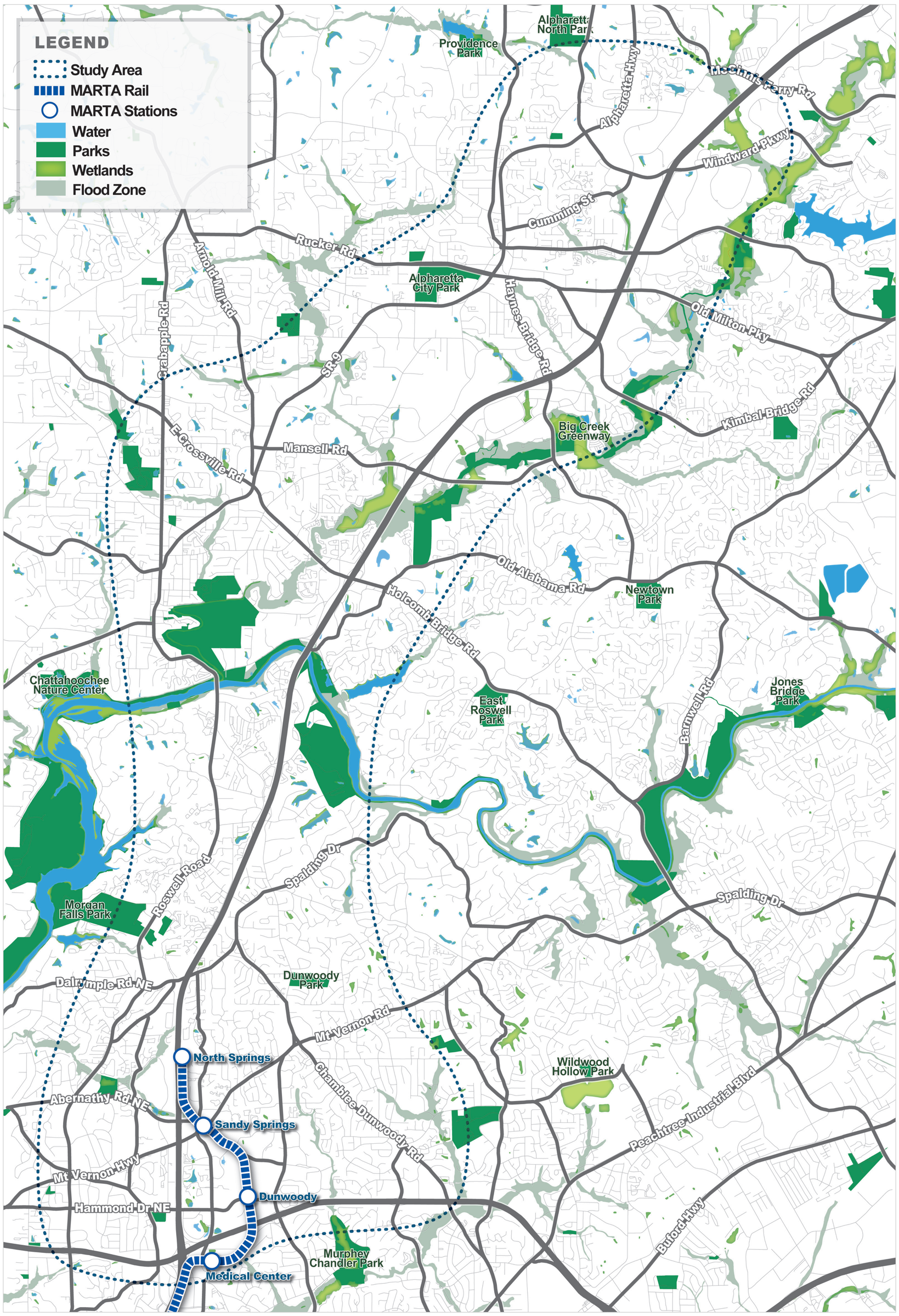
PARKS



WETLANDS



FLOOD ZONE



OBJECTIVES

- Avoid, minimize, and mitigate impact to cultural, historic, and environmentally sensitive areas
- Avoid, minimize, and mitigate negative impacts on the surrounding community, including parks

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GA 400 Corridor Alternatives Analysis: Draft Evaluation Framework

Transportation Challenges

- Levels of roadway congestion are forecasted to increase along the corridor.
- Transit mobility options are limited.
- Transit travel times are not competitive with auto travel times in the corridor.
- Travel demands are increasing.

- Economic development is constrained.

- There is a funding shortfall to construct transportation improvements

- Continued growth of vehicular travel will negatively affect the study area's environment.

Evaluation Framework

Goals and Objectives	Evaluation Criteria	Performance Measures	Fatal Flaw	Screen 1	Screen 2
Goal 1: Improve Mobility and Access					
Increase north-south and east-west transportation capacity	Mobility	Total daily project transit boardings			X
		New transit riders			X
		Number of transfers per linked trip			X
Increase transit ridership		Total passengers per mile			X
		Potential impacts to roadway capacity	X	X	X
		Annual corridor crash reductions			X
Improve transit travel times and reliability for all trip purposes	Travel Times	Transit travel time savings			X
		Differences in transit and auto travel times between various origins and destinations in the study area			X
Improve transit access and connectivity to employment, education, residential, and activity centers within the study area and the region	Accessibility and Connectivity	Projected population, household, and employment within a 10 minute walk and drive of stations		X	X
		Major trip generators/activity centers within a 10 minute walk and drive of stations	X	X	X
Improve multimodal connections and access to the existing transit systems		Low-income, minority, elderly and zero-car populations/households within a 10 minute walk of stations		X	X
		Interface with existing transit and future Concept 3 rapid transit service		X	X
		Maximize walking and bicycling accessibility to stations			X
Goal 2: Support Land Use and Economic Development Planning					
Ensure consistency with land use plans of study area jurisdictions	Land Use and Development	Consistency with adopted local and regional plans		X	
Support planned and potential economic development		Acres of land with economic development incentives within ½ mile of stations			X
Provide opportunities for compact land development that supports transit ridership	Potential for TOD	Projected population and employment densities within ½ mile of stations		X	X
		Acres of transit-supportive future land uses and zoning within ½ mile of stations		X	X
		Acres of vacant or underutilized land within ½ mile of stations			X
Goal 3: Provide Cost-Effective Transit Service					
Maximize operating and cost-efficiency	Costs	Annual Operations and Maintenance (O&M) Costs		X	X
Match the transportation investment to the study area's level of travel demand		Construction Capital Costs	X	X	X
		Right of Way Costs	X		X
Provide a cost-effective transit system	Cost Effectiveness	Cost Effectiveness Index (incremental costs divided by transportation system user benefit)			X
		Incremental cost per new rider			X
Goal 4: Minimize Environmental Impacts					
Avoid, minimize, and mitigate impact to cultural, historic, and environmentally sensitive areas	Environmental Quality	Acres of potentially impacted wetlands and waterbodies within 500 feet of alignments and ½ mile of stations		X	X
		Number of potentially impacted historic resources within 500 feet of alignments and ½ mile of stations		X	X
		Acres of noise sensitive land uses within 700 (HRT), 350 (LRT), or 200 (BRT) feet of alignments			X
		Number of contaminated and hazardous material sites within ¼ mile of alignments			X
	Air Quality	Change in Vehicle Miles Traveled (VMT)			X
		Change in daily emissions of air quality pollutants (CO, NOx, PM2.5, PM10)			X
Avoid, minimize, and mitigate negative impacts on the surrounding community including parks	Environmental Justice	Low-income, minority, elderly and zero-car populations/households near alignments			X
	Community Impact	Estimated community impacts/disruptions and number of displacements	X	X	X

PROJECT SUMMARY BOARD

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GA 400 TRANSIT INITIATIVE

REGIONAL STATION

WINDWARD STATION
(1/2 MILE)

Existing Land Use/Zoning:
Technology and business park/campus setting east of 400 with large undeveloped areas. The west side is comprised of hotels, big-box retail, and the Hewlett-Packard campus.

Future Land Use:
Continuation of corporate campuses and major commercial/retail, with some mixed-use development and general densification of uses.

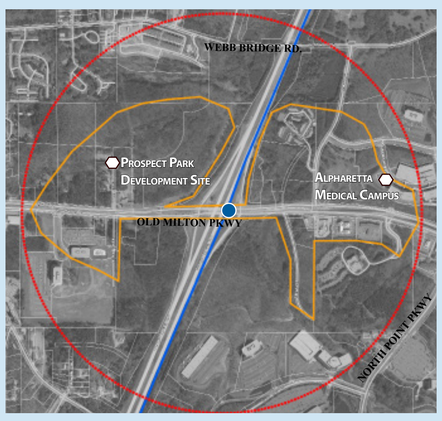
Vacant/Underutilized Land: 148 Acres (29% of total land area)

Projected 2040 Population: 1,756
Projected 2040 Employment: 2,137

Opportunities:
- Vacant land available for development
- Opportunities for higher density and a greater variety of commercial uses

COMMUNITY STATION

OLD MILTON
(1/2 MILE)



Existing Land Use/Zoning:
Office/institutional campuses, undeveloped land, and some commercial uses. Scarce residential uses.

Future Land Use:
Prospect Park (86-acre) mixed-use development under construction in NW. Additional institutional and office campuses (Gwinnett Tech future campus, additional medical offices), with some medium-density residential developing in NE area.

Vacant/Underutilized Land: 250 Acres (49% of total land area)

Projected 2040 Population: 2,184
Projected 2040 Employment: 4,027

Opportunities:
- Existing/future development not likely to support heavy rail in near term - light rail or BRT only.
- Significant amount of developable (open) land.

COMMUNITY STATION

NORTH POINT
(1/2 MILE)

Existing Land Use/Zoning:
South of 400 is comprised of North Point Mall and other auto-oriented commercial uses. North of 400 is primarily corporate/institutional campuses and open/undeveloped areas.

Future Land Use:
Mixed-use development, commercial, corporate office campuses, and some light industrial uses.

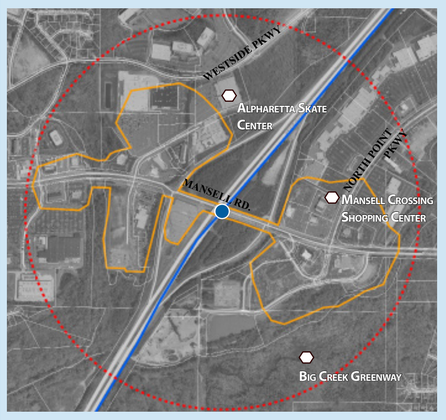
Vacant/Underutilized Land: 177 Acres (35% of total land area)

Projected 2040 Population: 1,738
Projected 2040 Employment : 3,911

Opportunities:
- Improve overall connectivity, develop TOD.
- Mixed-use village between mall & Encore Pkwy.
- Circulator bus loop between North Point & Mansell.

COMM OR NEIGHBORHOOD STATION

MANSELL
(1/2 MILE)



Existing Land Use/Zoning:
Auto-oriented commercial and business parks. Mansell Crossing mall in NE quadrant; Big Creek Greenway (natural open space) in SE quad.

Future Land Use:
Mixed-use development, corporate office campuses, continued greenway conservation, institutional uses.

Vacant/Underutilized Land: 232 Acres (46% of total land area)

Projected 2040 Population: 1,990
Projected 2040 Employment: 3,770

Opportunities:
- Open land and surface parking provide development opportunities.
- With improved connectivity, Mansell-North Point cluster is the corridor's best opportunity for future Transit Oriented Development (TOD).

COMMUNITY STATION

HOLCOMB BRIDGE
(1/2 MILE)

Existing Land Use/Zoning:
Auto-oriented commercial uses along Holcomb Bridge Rd. Townhomes and multi-family residential prevalent west of 400. Kimberly-Clark headquarters occupies most of the NE quadrant and older shopping center soccupy much of the SE quadrant.

Future Land Use:
Mixed-use redevelopment of underutilized commercial centers. Additional higher-density residential and professional office uses.

Vacant/Underutilized Land: 107 Acres (21% of total land area)

Projected 2040 Population: 2,927
Projected 2040 Employment: 2,176

Opportunities:
- Redevelopment of underutilized shopping centers.
- Mid-rise residential node near Kimberly-Clark.

NEIGHBORHOOD STATION

NORTHRIDGE
(1/2 MILE)

Existing Land Use/Zoning:
Low-density residential uses east of 400 with some institutional and office uses. Offices, auto-oriented commercial & high-density residential west of 400.

Future Land Use:
East of 400 to remain low-density residential with institutional uses. West of 400, mixed-use is planned for Northridge/SR-9, with surrounding areas developing mid-high density residential.

Vacant/Underutilized Land: 66 Acres (13% of total land area)

Projected 2040 Population: 2,766
Projected 2040 Employment: 2,736

Opportunities:
- Limited changes will occur east of 400.
- Mixed-use node at Northridge/State Route 9 could help provide transit-supportive density.

1/2 Mile Radius
10-Minute Walk Shed
Proposed Transit Alternative

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GA 400 TRANSIT INITIATIVE

Transit Technology Matrix

	BUS	BUS RAPID TRANSIT *(BRT)*	LIGHT RAIL TRANSIT *(LRT)*	HEAVY RAIL TRANSIT *(HRT)*	DIESEL MULTIPLE UNIT *(DMU)*	AUTOMATED GUIDEWAY TRANSIT
VEHICLE	EXPRESS   A local bus or a coach LOCAL   Short or long buses, various design options	  Rubber-wheeled vehicles, various design options	  Rail cars powered by overhead catenaries on a fixed guideway. Various design options, including Street Cars (SC).	 Rail cars powered by electric fixed guideway	 Self-propelled rail cars with a diesel engine, usually underneath the carriage. Cars can operate individually or be linked for longer trains	 Single elevated rail that provides support and electric power
RIGHT OF WAY	S Shared	E S C Exclusive, Shared, or Combination	E S C Exclusive, Shared, or Combination	E Exclusive	E Exclusive, usually on existing freight rail lines. New systems can operate similar to LRT	E Exclusive
SERVICE	**EXPRESS:** longer distance service with few stops. **LOCAL:** frequent stops serving local trips.	Typically serves regional trips, and local trips in dense urban areas.	LRT typically serves regional trips of longer distance with few stops, while SC serve shorter local trips with multiple stops.	Typically serves regional trips, and local trips in dense urban areas.	Typically used for regional service with few stops, or where existing freight lines are available. New systems can operate similar to LRT.	Typically used for local trips in dense urban areas.
STOPS/ STATIONS	 Flexible stop locations. Various design options. 	 Typically fixed stations with a pre-boarding payment. Some systems have flexible stop locations. 	 Typically fixed stations with a pre-boarding payment. Some systems have flexible stop locations.	 Fixed stations with elevated platform and pre-boarding payment.	 Fixed stations with elevated platform and pre-boarding payment.	 Fixed stations with elevated platform and pre-boarding payment.
CAPACITY	PERSONS / VEHICLE 40-85	PERSONS / VEHICLE 45-150	PERSONS / RAIL CAR 70-255	PERSONS / RAIL CAR 170-300	PERSONS / RAIL CAR 85-200	PERSONS / RAIL CAR 40-160
COST	VEHICLE COST $220,000-$400,000	VEHICLE COST $0.3-$1 M CONSTRUCTION / MILE $10-$40 M	VEHICLE COST $2-$4 M / LRT $0.6-$3 M / SC CONSTRUCTION / MILE $10-$105 M	VEHICLE COST $2.5- $3.5 M CONSTRUCTION / MILE $80-$260 M	VEHICLE COST $2.1-$2.3 M CONSTRUCTION / MILE $3-$15 M	CONSTRUCTION / MILE $90-$130 M

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STUDY AREA

GA 400 Corridor Alternatives Analysis